AMENDMENTS TO THE CLAIMS:

Kindly cancel claims 3 and 4, without prejudice, amend claims 1, 2 and 10-13 and add new claims 14 and 15.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claim 1 (currently amended): An optical disk device for recording or reproducing information on an optical disk with a recording layer formed on a transparent ~~substrate~~ layer, comprising:

an objective lens for condensing light for recording or reproducing information on said recording layer via a transparent ~~substrate~~ layer of the optical disk;

a signal detector for detecting a focus error ~~signals and focus sum signals~~ signal from return light reflecting from said recording layer; and

a thickness error detector for detecting a thickness ~~errors~~ error of said transparent ~~substrate~~ layer with reference to a specified value or its sign, based on ~~the characteristics~~ a difference between the absolute value of the positive peak of said focus error signal and the absolute value of the negative peak of said focus error ~~signals~~ signal.

Claim 2 (currently amended): An optical disk device for recording or reproducing information on an optical disk with a recording layer formed on a transparent ~~substrate~~ layer, comprising:

an objective lens for condensing light for recording or reproducing information on said recording layer via a transparent ~~substrate~~ layer of the optical disk;

a signal detector for detecting a focus error ~~signals and focus sum signals~~ signal and a sum signal from return light reflecting from said recording layer; and

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a thickness error detector for detecting a thickness ~~errors~~ error of said transparent ~~substrate~~ layer with reference to a specified value or its sign, based on ~~the peak position of said focus sum signals~~ a difference between the focus position of the peak point of said sum signal and the focus error signal.

Claims 3 and 4 (cancelled)

Claim 5 (withdrawn): The optical disk device described in Claim 1, wherein

said signal detector detects said focus error signals and said focus sum signals by means of the spot size method; and

said thickness error detector detects the thickness error of said transparent substrate or its symbol based on differences in the absolute value between the positive peak and negative peak of said focus error signals.

Claim 6 (withdrawn): The optical disk device described in Claim 2, wherein

said signal detector detects said focus error signals and said focus sum signals by means of the spot size method; and

said thickness error detector detects the thickness error of said transparent substrate or its symbol based on differences between the peak point of said focus sum signal and the zero point of said focus error signal in their focus positions.

Claim 7 (withdrawn): The optical disk device described in Claim 1, wherein

said signal detector detects said focus error signals and said focus sum signals by means of the astigmatism method; and

said thickness error detector detects the thickness error of said transparent substrate based on focus pull-in range which is the distance between the positive peak and negative peak of said focus error signals.

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Claim 8 (withdrawn): The optical disk device described in Claim 7, wherein

said thickness error detector detects the thickness error symbols of said transparent substrate and its symbol by means of detecting absolute amount of the thickness error of said transparent substrate from said focus pull-in range and compares waveforms of the positive peak vicinity with waveforms of the negative peak vicinity of said focus error signals.

Claim 9 (withdrawn): The optical disk device described in Claim 2, wherein

said signal detector detects said focus error signals and said focus sum signals by means of the astigmatism method; and

said thickness error detector detects the thickness error of said transparent substrate and its symbol based on differences between the peak point of said focus sum signal and the zero point of said focus error signal.

Claim 10 (currently amended): The optical disk device described in Claim 1, further comprising:

a spherical aberration compensator for compensating for spherical aberration caused by the thickness error of said transparent layer ~~substrate placed on said signal detector's optical path~~.

Claim 11 (currently amended): The optical disk device described in Claim 2, further comprising:

a spherical aberration compensator for compensating for spherical aberration caused by the thickness error of said transparent layer ~~substrate placed on said signal detector's optical path~~.

Claim 12 (currently amended): The optical disk device described in Claim 10, further comprising:

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a controller for calculating a compensating ~~factor~~ amount for said spherical aberration at each radial position of said optical disk based on a thickness ~~errors~~ error of said transparent ~~substrate~~ layer detected at ~~various~~ said radial ~~positions on the~~ position of said optical disk prior to recording or reproducing information, and ~~causing~~ driving said spherical aberration compensator to compensate for said spherical aberration based on said compensation ~~factors~~ amount during recording or reproduction of said optical disk.

Claim 13 (currently amended): The optical disk device described in Claim 11, further comprising:

a controller for calculating a compensating ~~factor~~ amount for said spherical aberration at each radial position of said optical disk based on a thickness ~~errors~~ error of said optical disk based on a thickness error of said transparent ~~substrate~~ layer detected at ~~various~~ said radial ~~positions on the~~ position of said optical disk prior to recording or reproducing information, and ~~causing~~ driving said spherical aberration compensator to compensate for said spherical aberration based on said compensation ~~factors~~ amount during recording or reproduction of said optical disk.

Claim 14 (new): An optical disk device for recording or reproducing information on an optical disk with a recording layer formed on a transparent layer, comprising:

an objective lens for condensing light for recording or reproducing information on said recording layer via a transparent layer of the optical disk;

a signal detector for detecting a focus error signal and a focus sum signal from return light reflecting from said recording layer;

a thickness error detector for detecting a thickness error of said transparent layer with reference to a specified value, based on the characteristics of said focus error signal;

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a spherical aberration compensator for compensating for spherical aberration caused by the thickness error of said transparent layer placed on an optical path of said signal detector; and

a controller for calculating a compensating amount for said spherical aberration at each radial position of said optical disk based on a thickness error of said transparent layer detected at said radial position of said optical disk prior to recording or reproducing information, and driving said spherical aberration compensator to compensate for said spherical aberration based on said compensation amount during recording or reproduction of said optical disk.

Claim 15 (new): An optical disk device for recording or reproducing information on an optical disk with a recording layer formed on a transparent layer, comprising:

an objective lens for condensing light for recording or reproducing information on said recording layer via a transparent layer of the optical disk;

a signal detector for detecting a focus error signal and a focus sum signal from return light reflecting from said recording layer; and

a thickness error detector for detecting a thickness error of said transparent layer with reference to a specified value, based on the peak position of said focus sum signal;

a spherical aberration compensator for compensating for spherical aberration caused by the thickness error of said transparent layer placed on an optical path of said signal detector; and

a controller for calculating a compensating amount for said spherical aberration at each radial position of said optical disk based on a thickness error of said transparent layer detected at said radial position on the optical disk prior to recording or reproducing information, and

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driving said spherical aberration compensator to compensate for said spherical aberration based on said compensation amount during recording or reproduction of said optical disk.

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